



ParnassFamily
<casapar@pacbell.net>
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To Christopher Lichens/R9/USEPA/US@EPA
cc Lori Parnass <LParnass@dtsc.ca.gov>
bcc
Subject Omega ARARs

History: This message has been replied to.

Chris, Please find a rough draft of identified ARARs for the Omega Chemical Superfund Site attached. These ARARs have been requested from State Agencies for the treatment of VOCs in soil and groundwater media. I had very little background data to provide as supporting documents to the agencies or tailor the ARARs for site specificity but would stand by its comprehensiveness. (Sorry about the extensive Fish and Game). Some ARARs simply don't apply however, when I started editing, the format went awry.

Please note, as I did not have RI/HRA work to reference, I included several 'to be determined' conclusions and some sections are clumsy. DTSC reserves the right for review and comment along with USEPA when OPOG submits as this really is a rough draft and we expect many changes. Occasionally reference to soil media is included, editing may be appropriate. I look forward to seeing more Site specific information included in the document which would tailor the ARARs for our project. Lori

P.S. This computer is sending you the document in Corel Word Perfect. I hope we do not have a problem with this.

Save the file to your drive first, then open Word Perfect and then open up the file.



ARARS.WPD

8.0 APPLICABLE AND RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

Under the CERCLA, a remedial action, upon completion, must meet ARARs. The ARARs can be defined as requirements in promulgated environmental laws as they relate to on-site remedial actions. On-site includes the areal extent of contamination and all suitable areas in proximity to the contamination necessary for implementation of the response action at the Site (40 Code of Federal Regulations [CFR] §300.5). Off-site actions are not addressed through this ARARs evaluation and must comply with all applicable local, state, and federal administrative and substantive requirements.

In some situations, ARARs may not be available or adequately address protection of human health and the environment. Where ARARs do not sufficiently address a situation, to-be-considered (TBC) documents (e.g., nonpromulgated advisories, criteria, guidance, or proposed standards) issued by federal and state agencies were identified (40 CFR §300.400.g.3). These TBC documents are not enforceable nor are they legally binding and do not have the same status as ARARs. However, guidance documents are considered when developing cleanup levels and evaluating risks to human health or the environment.

These ARARs and TBC documents, in conjunction with the overall protection to human health and the environment criterion, form the threshold criteria (i.e., threshold, primary balancing, and modifying criteria) to evaluate remedial alternatives and meet when selecting a remedial action. The Health Risk Assessment for the Omega Chemical Superfund Site (Site) will be conducted during the Engineering Evaluation/Cost Analysis (EE/CA) process therefore the ARARs and TBCs identified during the EE/CA are preliminary. The final determination of ARARs will not be made until the remedy for the Site is selected and documented in the decision document Action Memo, this decision document will be for an interim removal of volatile organic compounds limited to the soil vapor and groundwater contamination release associated with the Site.

8.1 ARARs DEFINITION

The ARARs are defined in the CERCLA to include:

- Any standard, requirement, criterion, or limitation under federal environmental law.
- Any promulgated standard, requirement, criterion, or limitation under a state environmental or facility-siting law that is more stringent than the associated federal standard, requirement, criterion, or limitation.

An ARAR may be either “applicable,” or “relevant and appropriate.” These terms are defined in the National Oil and Hazardous Substance Contingency Plan (referred to as the National Contingency Plan [NCP]) (40 CFR §300.5) to include:

- Applicable requirements are those cleanup standards, standards of control, or other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at the site.

- Relevant and appropriate requirements are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under federal or state environmental or facility siting laws that are not “applicable” to the site but address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site.

The potential ARARs in this document represent the most stringent of the state and federal requirements. When considering the substantive state requirement for the Site, only those promulgated state requirements that are identified by the state in a timely manner and that are more stringent than federal requirements are considered ARARs (CERCLA §121(d)(2)(A)(ii)).

The timing and stringency criteria are applied to the state requirements prior to identification as potential ARARs in this document. For example, the state identified the California Environmental Quality Act (CEQA) as an ARAR (SWRCB, 1992; RWQCB, 2002). CEQA is an informational document used by California public agencies in the decision making process with requirements that are no more stringent than the environmental review conducted through CERCLA. Prescribed CERCLA procedures for evaluating environmental impacts include selecting remedial action with feasible mitigation measures, providing for public participation and review, and evaluating short- and long-term impacts to human health, procedures that are substantially equivalent to the CEQA requirements. Because the state and federal requirements through CERCLA are no less stringent than CEQA requirements, EPA has determined that CEQA is not an ARAR.

The state agencies have published or provided state requirements relevant to their agency jurisdiction (SWRCB, 1992; RWQCB, 2002; CDFG, 2002). The application of these requirements to the Site was evaluated and presented in Table 8-1.

TABLE 8-1
OMEGA CHEMICAL SUPERFUND SITE EE/CA
COCs and MCLs

Contaminant of Concern	Chemical Abstract Service Number	California Primary MCL ^a (micrograms per liter)	Federal Primary MCL ^b (micrograms per liter)
1,1-Dichloroethane	75-34-3	5.0	none
1,1-Dichloroethene	75-35-4	6.0	7.0
trans-1,2-Dichloroethylene	156-60-5	10.0	100.0
cis-1,2-Dichloroethylene	156-59-2	6.0	70.0
1,2-Dichloroethane	107-06-2	0.5	5.0
1,1-Dichloroethane	75-35-3	0.005	none
1,4-Dioxane	123-91-1	3.0	3.0
1,1,1-Trichloroethane	71-55-6	0.2	200.0
Benzene	71-43-2	1.0	5.0
Chloroform	67-66-3	0.1	100
Methylene Chloride	75-09-2	5.0	5.0
Toluene	108-88-3	150.0	1,000.0
Trichlorofluoromethane (Freon 11)	75-69-4	150.0	None

TABLE 8-1

**OMEGA CHEMICAL SUPERFUND SITE EE/CA
COCs and MCLs**

Contaminant of Concern	Chemical Abstract Service Number	California Primary MCL ^a (micrograms per liter)	Federal Primary MCL ^b (micrograms per liter)
1,1,2-Trichloro-1,2,2-trifluoromethane (Freon 113)	76-13-1	1,200.0	None
Methyl tertbutyl ether (MTBE)	1634-04-4	13.0	None
Carbon Tetrachloride	56-23-5	0.5	5.0
Tetrachloroethylene	127-18-4	5.0	5.0
Trichloroethylene	79-01-6	5.0	5.0
Vinyl Chloride	75-01-4	0.5	2.0

^a MCLs from Title 22 California Code of Regulation Section 64431 and 64444 unless otherwise specified.

^b MCLs from Title 40 Code of Federal Regulations Part 141.

^c No MCL established. California Action Level and USEPA drinking water standard identified for 1,4-dioxane

COC contaminant of concern

MCL maximum contaminant level

EE/CA Engineering Evaluation/Cost Analysis

Although nonenvironmental laws are not discussed as ARARs, including worker safety laws, the hazardous waste worker safety regulations are acknowledged as part of any remedial activity on site. The remedial activity selected for the site is anticipated to conform to the California worker safety regulations for Hazardous Waste Operations and Emergency Response [HAZWOPER] (Title 8, California Code of Regulations [CCR] §5192 *et seq.*). Employee safety requirements are provided for cleanup operations or hazardous substance removal work required by a governmental body. The California regulations have incorporated the HAZWOPER requirements (29 CFR §1910.120 *et seq.*) and are considered more stringent than federal requirements. Additionally, any off-site activity must comply with all applicable substantive and administrative regulatory requirements.

8.2 ARAR WAIVER PROVISIONS

Specific circumstances in which ARARs may be legally waived are established in CERCLA (CERCLA §121.d.4). There are six waiver criteria available, including interim measures, greater risk to health and the environment, technical impracticability, equivalent standard of performance, inconsistent application of state requirements, and fund balancing. The criteria and circumstances in which a waiver may be applied are:

- **Interim Measure**—The remedial action selected is only a part of the total remedial action that will attain such level or standard of control when completed;
- **Greater Risk to Health and the Environment**—Compliance with the requirement will result in greater risk to human health and the environment than alternative operations;
- **Technical Impracticability**—Compliance with the requirement is technically impracticable from an engineering perspective;

- **Equivalent Standard of Performance**—The remedial action selected will attain a standard of performance that is equivalent to that required under alternative applicable standards, requirements, criteria, or limitations, through use of another remedial action;
- **Inconsistent Application of State Requirements**—With respect to state standards, requirements, criteria, or limitations, the state has not consistently applied (or demonstrated the intention to consistently apply) the standard, requirement, criterion or limitation in similar circumstances at other remedial actions within the state; or
- **Fund Balancing**—In case of a remedial action to be undertaken solely under CERCLA §104 using the Fund, selection of a remedial action that attains such level or standards of control will not provide a balance between the need for protection of public health and welfare and the environment at the facility under consideration, taking into consideration the relative immediacy of such threats.

8.3 SITE-SPECIFIC ARARs

The identification and documentation of potential ARARs and TBCs was accomplished using EPA guidance in conjunction with a review of federal and state laws, regulations, and policies (EPA, 1988). TBCs were identified using guidance documents available from federal and state agencies and engineering judgment.

Potential ARARs are presented in three categories based in the manner in which they are applied to the Site; chemical-, location-, and action-specific ARARs. The ARARs documentation provides rationale for the decision that chemical-, location-, and action-specific requirements are applicable, or are relevant and appropriate for the Site, for each remedial action alternative that passed through the screening process and into the detailed analysis. Within the three categories, the requirements are further organized by federal ARARs followed by state ARARs and the TBC documents. A description of categories followed by the principal requirements within each category is provided below.

Documentation of all the ARARs is provided in Table 8-2.

8.3.1 Chemical-Specific ARARs

The potential chemical-specific ARARs are health- or risk-based concentration limits, numerical values or methodologies for various environmental media (e.g., groundwater, soil and soil vapor) and establish the acceptable amount or concentration of a chemical that may be found in or discharged to the environment. Chemical-specific requirements are available and are presented for the contaminated aquifer. However, there are no chemical-specific ARARs for soils or soil vapor. Because the soil and soil vapor present a potential source of continuing groundwater contamination, the chemical-specific requirements for soil and soil vapor emphasize environmental protection of the aquifer. Chemical-specific TBC human health advisories and risk assessment guidance documents addressing the Site contaminants will be presented in the Site Streamlined Human Health Risk Evaluation.

Federal Chemical-Specific Requirements

- **Federal Primary Drinking Water Standards (40 CFR Part 141).** Federal primary MCLs under the Safe Drinking Water Act (SDWA) protect the public from contaminants that may be found in drinking water. The MCLs are only applicable “at the tap” for drinking water provided to 25 or more people or water systems with 15 or more service connections. Because groundwater underlying the Site may not be used as a drinking water source but is identified by the state as

a potential source of drinking water, the requirements are relevant and appropriate to the aquifer underlying the Site. The federal MCLs for the Site contaminants of concern (COCs) are presented in Table 8-1.

State Chemical-Specific Requirements

- Primary Drinking Water Standards (22 CCR §64431 and 64444). California has promulgated drinking water standards for public drinking water sources under the California Safe Drinking Water Act (California Health and Safety Code [H&S Code] §4010 et. seq.). California primary MCLs are established to protect public health from contaminants that may be found in drinking water sources.

The contaminated groundwater below the Site has the potential for contaminant migration to the groundwater that is used as a municipal and domestic supply. To prevent the potential for further migration, the drinking water standards would be relevant and appropriate as a cleanup level for the groundwater. For some of the chemical constituents, the California MCLs are more stringent than the federal requirements. Only the California MCLs more stringent than the federal MCLs are considered ARARs. The MCLs identified as ARARs for the Site COCs are presented in Table 8-1.

- Secondary Drinking Water Standards (22 CCR §64471). The California secondary drinking water standards are promulgated state standards applicable to public water system which address the aesthetic characteristics (i.e., taste, odor, appearance) of drinking water. California MCLs are enforceable while the federal secondary MCLs are recommendations. None of the COCs at the Site include chemicals listed with secondary drinking water standards. Therefore, the California secondary MCLs are not ARARs for this Site.
- Special Monitoring Requirements for Unregulated Organic Chemicals (22 CCR §64450). There are nine unregulated chemicals required to be monitored by purveyors of drinking water systems. Unregulated chemicals requiring monitoring are “unregulated” in that they lack promulgated MCLs. However, these chemicals are included in the special monitoring regulation which became effective January 3, 2001. Although these special monitoring regulations contain only notification and reporting requirements and are therefore not considered ARARs.
- California Water Code Section 13240 *et seq.* The Water Quality Control Plan for the Los Angeles Region (Basin Plan, adopted November 19, 1992) contains numerical and narrative water quality objectives for waters of the state that ensure protection of beneficial uses and prevention of nuisances affecting beneficial use. These objectives are not merely restricted to surface water but also apply to groundwater (SWRCB, 1992). Promulgated numerical water quality objectives may be chemical-specific ARARs. Nonpromulgated mechanisms or theories on how to derive a numerical water quality objective or meet a numerical water quality goal may also be ARARs if specific regulations are promulgated implementing the goal (55 FR 8746, March 8, 1990).

The numerical water quality objectives for groundwater supply used as a domestic or municipal supply (MUN) are based on the drinking water standards. Because the primary MCLs have already been identified as ARARs for the COCs at the Site, the numerical water quality objectives in the Basin Plan are addressed through the primary MCLs as chemical-specific ARARs.

Similarly, the RWQCB’s narrative water quality objectives for groundwater are addressed through the primary MCLs. The narrative water quality objectives establish that “groundwater

shall not contain concentrations of chemical constituents or radionuclides in excess of the limits specified in the following provisions (California drinking water regulations).” Although the designated use of the groundwater under the Site is not as a drinking water source, it has the potential to impact the groundwater which is used as a drinking water source. The designated beneficial use is the protection of a MUN, and the numerical primary MCLs have been promulgated and are ARARs.

As a component of some of the remedial alternatives discussed in the EE/CA, discharge options for extracted groundwater are discussed. These alternatives evaluate groundwater discharge options, including municipal stormwater drainage system, aquifer re-injection, and municipal sewer system (i.e., POTW). Groundwater discharge options are considered for evaluation under the action-specific category.

- SWRCB Resolution No. 92-49. *The Policy and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code §13304* derives its authority to maintain the highest quality of water (SWRCB Resolution No. 68-16) through waste discharge requirements as implemented through the federal National Pollutant Discharge Elimination System (NPDES) or RWQCB waste management and discharge requirements (27 CCR §20200 et seq.).

The only substantive requirement is identified in SWRCB Resolution No. 92-49, Section III.G. The section requires cleanup either to background water quality, or the best water quality which is reasonable if background cannot be restored. A selected alternative cleanup level greater than chemical background concentration for the aquifer would have to be consistent with maximum benefit to the public, the present and anticipated future beneficial uses, and conform to water quality control plans and policies.

SWRCB Resolution No. 92-49 is also relevant and appropriate for soil at the Site. Attainment of this requirement is consistent with the objective of soil remediation at the Site. Contaminated soil must be remediated to a concentration that does not exhibit a continuing source of contamination to groundwater, the preventing attainment of groundwater cleanup levels.

8.3.2 Location-Specific ARARs

The potential location-specific ARARs are substantive restrictions placed on the chemical contaminant or the remedial activities based on the Site’s geographic or ecological features. Examples of location-specific features include floodplains, seismic faults, wetlands, historic places, and sensitive ecosystems or habitats.

Federal Location-Specific Requirements

- National Historic Preservation Act (16 United States Code [USC] §470 et seq.). The requirements of the National Historic Preservation Act are applicable to the Site if the remedy impacts any historic site protected under the Act. This requirement may be identified as an ARAR, and further evaluation of this ARAR may be necessary.
- Floodplains (Executive Order 11988). Executive Order 11988 requires all federal agencies conducting activities in floodplains to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains. The Site is located in a portion of the City of Whittier that has not been identified by the Federal Emergency Management Agency (FEMA) to be within a 100-year floodplain. This requirement is not identified as an ARAR, and further evaluation of this ARAR is not necessary.
- Endangered Species (16 USC §1531 et seq.; 50 CFR Part 402). The Federal Endangered Species Act requires action to conserve endangered species and critical habitats. The Site is located in

a developed urban land use zone designated for industrial use, and endangered species have not been identified at the Site. This requirement is not identified as an ARAR, and further evaluation of this ARAR is not necessary.

- Migratory Bird Treaty Act (16 USC §703; 50 CFR §10.1 et seq.). Unless and except as permitted by federal regulations, migratory birds are protected. Migratory birds include migratory game birds and nongame birds. It is unlawful to pursue, hunt, take, capture, or kill any migratory bird or nest or eggs of any such bird. None of the alternatives being evaluated anticipate disturbance of migratory birds or avian habitat. This requirement is not identified as an ARAR, and further evaluation of this ARAR is not necessary.

State Location-Specific Requirements

- Seismic Consideration (22 CCR §66264.18.a). This requirement applies to portions of new hazardous waste facilities where treatment, storage, or disposal of hazardous waste will be conducted. The affected areas must not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time. Active and nonactive faults may be identified within 200 feet of the Site. This requirement may be identified as an ARAR, and further evaluation of this ARAR for seismic considerations may be necessary.
- Floodplains (22 CCR §66264.18.b). The California hazardous waste regulations require hazardous waste facilities constructed within a 100-year flood plain to minimize adverse impacts of washout in the floodplains. The Site is located in a portion of the City of Whittier that has not been identified by the FEMA to be within a 100-year floodplain. This requirement is not identified as an ARAR, and further evaluation of this ARAR is not necessary.
- Fish and Game Code §5650. The requirements prohibit the deposition into waters of the state petroleum products, factory refuse, and any substance deleterious to fish, plants, or birds. This requirement does not apply to discharges or release authorized through waste discharge requirements issued by the RWQCB. This section is not an ARAR because none of the alternatives evaluate surface water releases.

8.3.3 Action-Specific ARARs

The potential action-specific ARARs are usually technology- or activity-based requirements for remedial activities. The action-specific ARARs presented are intended to address the remedial alternatives being evaluated in the EE/CA that may be applied to the Site.

State Action-Specific Requirements

- California Hazardous Waste Laws. On July 26, 1982, the federal Resource Conservation and Recovery Act (RCRA) requirements were promulgated. California received EPA authorization to administer and implement a state hazardous waste management program which is more stringent than the federal RCRA program. Authorization to enforce the federal requirements is received only after the RCRA requirements are incorporated into California's hazardous waste regulations. Those portions of the RCRA program presented in this report have received authorization by EPA and have been incorporated into the California regulations. The California Hazardous Waste Control Law, Chapter 6.5 of Division 20 of the California H&S Codes, and the regulations of Title 22 CCR are therefore referenced in this report in lieu of the RCRA.

The two methods for characterizing hazardous waste are RCRA-listed (i.e., source and non-source specific) and by characteristics (i.e., ignitability, corrosivity, reactivity, and toxicity). For

CERCLA actions which involve treatment, storage, or disposal of hazardous waste after July 26, 1982, the hazardous waste standards will generally be applicable. If federal hazardous waste was treated, stored, or disposed at the Site before the effective date of these standards, the standards would be relevant and appropriate (EPA, 1988).

Considering the Site-operating time frame, contaminants and characteristics there may be sufficient information to classify the COCs in the soil vapor and groundwater as RCRA-listed and/or characteristic hazardous waste. Because the COC concentrations in the soil vapor and groundwater are high and they may exceed the hazardous waste characteristics. The specific hazardous waste requirements that may be relevant and appropriate (i.e., an ARAR) to the Site are discussed in the comprehensive tabular summary of ARARs (Table 8-2).

- SWRCB Resolution No. 88-63. The SWRCB resolution *Sources of Drinking Water* specifies, with certain exceptions, all groundwater and surface waters have the beneficial use of municipal or domestic water supply. Since SWRCB Resolutions No. 68-16 and 92-49 focus on the protection of groundwater for beneficial uses, the definition of drinking water sources is an important consideration for this Site. To determine compliance with SWRCB Resolutions No. 68-16 and 92-49, the water quality of the contaminated area and the receiving water is necessary.

For groundwater below the Site, an aquifer would be considered to be suitable or potentially suitable as a municipal or domestic water supply with the exception of water sources that:

- Yield water with the TDS exceeding 3,000 milligrams per liter (mg/L);
- Contain natural or anthropogenic contaminated water that cannot be reasonably treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or
- Are not capable of sustaining 200 gallons per day through a single well.

The groundwater located beneath the Site is not known to discharge to surface water. It is a aquifer with a potential for contaminants to migrate to the aquifer that is used as a municipal and domestic supply (i.e., drinking water supply).

Therefore, SWRCB Resolution No. 88-63 is applicable (i.e., an ARAR) to the Site, and the aquifer should be treated as a potential source of drinking water for protection under SWRCB Resolutions No. 68-16 and 92-49.

- SWRCB Resolution No. 68-16. The *Statement of Policy With Respect to Maintaining High Quality of Waters in California* is the state's antidegradation policy that provides a narrative standard which requires that high quality surface water and groundwater be maintained to the maximum extent possible.

Any waste discharge to existing high quality waters will be required to meet waste discharge requirements which will result in best practical treatment technology, ensuring that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained. Determination is made through a two-step process to determine (1) whether further degradation may be allowed, and (2) the discharge level which will result in the best practicable treatment or control of the discharge.

EPA has determined that Resolution No. 68-16 is not a chemical-specific ARAR for setting aquifer cleanup standards but is applicable to treatment technologies with active discharges to surface water or groundwater. Antidegradation requirements apply prospectively and only obligate EPA to prevent further degradation of the water during and at completion of the cleanup action (EPA, 1990).

Therefore, Resolution No. 68-16 is an action-specific ARAR applicable to remedial alternatives that include surface water discharges, ponding basins, or groundwater re-injection. Groundwater re-injection is a potential option for the disposal of treated groundwater at the Site. EPA's position is that only COCs identified for the Site shall be treated. Treated groundwater injected within the footprint of a contaminated plume will be treated to at least the concentration level in the groundwater at the point of re-injection, but not greater than the drinking water standard. Re-injection outside the contaminated plume must be less than the MCL standard at which the discharger can be expected to achieve using reasonable control measures at the point of re-injection (EPA, 1993).

- Water Quality Monitoring and Response Programs for Solid Waste Management Units (27 CCR §20385 et seq.). The monitoring requirements apply to all determinations of alternative cleanup levels for unpermitted discharges to land of solid waste, pursuant to SWRCB Resolution No. 92-49, Section III.G. The provisions of the Detection, Evaluation, and Corrective Action monitoring requirements were developed for the purposes of detecting, characterizing, and responding to releases to groundwater, surface water, or the unsaturated vadose zone. Because the Site has not completed the Superfund process through the RI/FS phase, the detection and characterization monitoring requirements are relevant to the Site. However, corrective action monitoring to demonstrate completion of the selected interim remedy for groundwater treatment at the Site would be relevant and appropriate (i.e., an ARAR) and is further discussed in Corrective Action Program (27 CCR §20430).
- Corrective Action Program (27 CCR §20430). Corrective action measures taken (e.g., groundwater pump-and-treat system) may be terminated when the discharger demonstrates that all the COCs concentrations are reduced to levels below their respective concentration limits throughout the entire zone affected by the release. Completion of the correction action for the treatment system(s) is demonstrated using the following criteria and requirements:
 - The concentration of each COC in each sample from each monitoring point in the Corrective Action Program for the Unit must have remained at or below its respective concentration limit during a proof period of at least one year, beginning immediately after the suspension of corrective action measures; and
 - The individual sampling events for each monitoring point must have been evenly distributed throughout the proof period and have consisted of no less than eight sampling events per year per monitoring point.

The schedule to demonstrate compliance for corrective action appears relevant and appropriate (i.e., an ARAR).

- South Coast Air Quality Management District (SCAQMD) Rules and Regulations. To implement the federal Clean Air Act, states are required to submit and adopt a state implementation plan (SIP) for EPA approval. The SIP addresses implementation, maintenance, and enforcement of the national and California ambient air quality standard (AAQS). A significant component of the SIP is the local air pollution district regulations and rules which are used to control emissions and attain these AAQSSs. Federal approval resulted in the SIP being federally enforceable and considered potential ARARs for the Site. The SCAQMD rules and regulations addressed in this report were approved by EPA and establish the local air pollution control requirements for Los Angeles, Orange, and portions of Riverside and San Bernardino counties.
 - Regulation IV, Rule 401, Visible Emissions. Discharge of any contaminant into the atmosphere from any single source of emission shall not be as dark or darker than shade

No.1 on the Ringelmann Chart or of such opacity that may obscure an observer's view to a degree equal to or greater than shade No. 1 on the Ringelmann Chart. This rule is a potential ARAR.

- Regulation IV, Rule 402, Nuisance. Discharge from any source shall not contain air contaminants or other material, which causes injury, detriment, nuisance, or annoyance to any considerable number of persons, or to the public. Discharge shall also not endanger the comfort, repose, health or safety of any such persons or the public, or cause injury or damage to business or property. This rule is a potential ARAR.
- Regulation IV, Rule 403, Fugitive Dust. The intention of Rule 403 is to reduce, prevent, or mitigate emission of fugitive dusts from any activity or man-made condition capable of generating fugitive dust. Emissions of fugitive dust shall not remain visible in the atmosphere beyond the property line of the emission source. Activities conducted in the South Coast Air Basin shall use best available control measures to minimize fugitive dust emissions and take necessary steps to prevent the track-out of bulk material onto public paved roadways as a result of their operations. This rule is a potential ARAR.
- Regulation IV, Rule 404, Particulate Matter Concentration. Particulate matter in excess of the concentration standard shall not be discharged from any source. Particulate matter in excess of 450 milligrams per cubic meter (0.196 grain per cubic foot) in discharged gas, calculated as dry gas at standard conditions, shall not be discharged to the atmosphere from any source. Emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time. This rule is a potential ARAR.
- Regulation IV, Rule 405, Solid Particulate Matter-Weight. Solid particulate matter discharged into the atmosphere from any source shall not exceed the rates provided in Table 405 in this Rule. Emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period. This rule is a potential ARAR.
- Regulation XI, Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil. The purpose of Rule 1166 is to control the emission of VOCs from excavating, grading, handling, and treating VOC-contaminated soil. Excavation of VOC-contaminated soil is not being proposed at this time, therefore, the requirement is not an ARAR.
- Regulation XIII, Rule 1303, Best Available Control Technology. Any new or modified source of air contaminant which results in an emission increase of any nonattainment air contaminant, ozone depleting compounds, or ammonia shall apply the best available control technology (BACT) using the published SCAQMD BACT Guidelines. The VOCs identified at the Site are precursors to ozone. This rule is a potential ARAR.
- Regulation XIV, Rule 1401, New Source of Toxic Air Contaminants. The rule specifies limits for maximum individual cancer risks (MICR), cancer burden, and noncancer acute and chronic HI from new or existing source which emit toxic air contaminants. Sources constructed with Best Available Control Technology for toxics (T-BACT) should not exceed a cumulative carcinogenic increase greater than ten in one million (1.0E-05) at any receptor location or one in a million (1.0E-06) for sources constructed without T-BACT. Additionally, the cumulative increase for the chronic HI should not exceed 1.0 at any receptor location for any target organ system due to total emissions from the source. This rule is a potential ARAR.

8.3.4 To-Be-Considered (TBCs) Documents

A large number of state and federal criteria, advisories, and guidance documents are used in the development for a baseline risk assessment. A health risk assessment has not been conducted for the Site however, a streamlined health risk evaluation will be conducted. For the sake of brevity and eliminating redundancy in documenting TBCs for the human health and ecological risk assessment guidance documents and health advisories will be referenced in the streamlined health risk evaluation that will be conducted for the Site. The following TBC documents presented are intended to address the state and federal guidance documents not associated with risk assessments.

- A Compilation of Water Quality Goals – August 2000. The RWQCB report does not establish policy or regulation. However, it does provide numerical water quality goals that may be used to establish cleanup levels for surface water and groundwater.
- The Designated Level Methodology for Waste Classification and Cleanup Level Determination – June 1989. The RWQCB report establishes a method to determine if the quantity of a constituent in waste could migrate to surface water or groundwater. Since there are no established ARARs for soil, this method is available to establish a chemical-specific performance standard (cleanup level) for soil contaminants to prevent further migration to groundwater. The methodology uses generic leachability factors based on the environmental attenuation and solubility of the COCs.
- California Action Levels (ALs). ALs are health-based advisory levels established by the California Department of Health Services (DHS) for contaminants that lack primary MCLs. ALs are advisory levels and not enforceable standards. An AL is the concentration of a contaminant in drinking water that is considered not to pose a significant health risk to people ingesting that water on a daily basis. It is calculated using standard risk assessment methods for noncancer and cancer endpoints and typical exposure assumptions, including a 2-liter per day ingestion rate, a 70-kilogram adult body weight, and a 70-year lifetime.

For 1,4-dioxane, a chemical considered a possible carcinogen and a COC at the Site, the AL is generally a level considered to pose “de minimis” risk (i.e., a theoretical lifetime increase in risk of up to one excess case of cancer in a population of 1,000,000 people—the 10E-6 risk level). Table 8-1 provides the California AL for 1,4-dioxane.

- California Well Standards Bulletin 74-81; 74-90. Substantive standards for the construction of wells have been published by the State of California. California Well Standards Bulletin 74-81 include municipal and injection well standards. California Well Standards Bulletin 74-90 amends Bulletin 74-81 and includes monitoring well standards. While these standards have not been promulgated and are therefore not ARARs, the extraction wells for municipal reuse and injection wells at the Site will comply with substantive water well construction standards of Bulletin 74-81 and amendments contained in Bulletin 74-90. These standards include annular sealing material and construction, well casing specification, and disinfection procedures. However, extraction and injection well siting requirements are inappropriate for the Site because the effectiveness of the remedy is dependent upon well locations. These California well standards are TBCs for the Site.

To document all the potential ARARs, a comprehensive tabular summary of ARARs applied to the Site is provided in Table 8-2.

TABLE 8-2

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
CHEMICAL-SPECIFIC ARARs			
Federal Primary Drinking Water Standards 40 CFR Part 141	Federal primary MCLs under the Safe Drinking Water Act (SDWA) protect the public from contaminants that may be found in drinking water. The MCLs are only applicable “at the tap” for drinking water provided to 25 or more people or water systems with 15 or more service connections. Because the groundwater underlying the Site has been identified as a potential source of drinking water, the requirements are relevant and appropriate to the aquifer underlying the Omega Chemical Superfund Site.	Groundwater	Relevant and appropriate
California Primary Drinking Water Standards Health and Safety Code (H&S Code) §4010 <i>et seq.</i> 22 California Code of Regulations (CCR) §64431 and 64444	California primary MCLs are established to protect public health from contaminants “at the tap” that may be found in drinking water sources. The California MCLs established for the primary contaminants are at least as stringent as the federal standard. The MCLs would be relevant and appropriate as a cleanup level for the Site.	Groundwater	Relevant and appropriate
Secondary Drinking Water Standards 22 CCR §64471	Secondary MCLs are applicable to public water system and establish aesthetic characteristics “at the tap” (i.e., taste, odors, appearance) of drinking water. None of the COCs at the Site include chemicals listed with secondary drinking water standards.	Groundwater	Not an ARAR
Special Monitoring Requirements for Unregulated Organic Chemicals 22 CCR §64450	Nine unregulated chemicals are required to be monitored at drinking water systems. These unregulated chemicals lack MCLs. These chemicals are included in the special monitoring regulation with only notification and reporting requirements. The notification and reporting requirements are administrative and are not considered as ARARs.	Groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
CHEMICAL-SPECIFIC ARARs			
California Water Code §13241, 13243, 13263(a), and 13360	<p>Authorizes the state and regional water boards to establish in Water Quality Control Plans beneficial uses and numerical and narrative standards to protect both surface and groundwater quality. Authorizes regional water boards to issue permits for discharges to land, or surface, or groundwater that could affect water quality, including NPDES permits, and take enforcement action to protect water quality.</p> <p>The permits are administrative requirements and are not considered ARARs. The water quality standards are ARARs but are presented below.</p>	Groundwater and soil	See specific requirements below
Water Quality Control Plan for Los Angeles Region (adopted 11/19/92) California Water Code §13240 et seq.	<p>Establishes beneficial uses of ground and surface waters, establishes water quality objectives, including narrative and numerical standards, establishes implementation plans to meet water quality objectives (WQOs) and protect beneficial uses, and incorporates statewide water quality control plans and policies. The WQOs for groundwater are based on the primary MCLs.</p> <p>The Los Angeles plan designates the beneficial uses of groundwater in the Los Angeles coastal plain to be municipal and domestic, agricultural, industrial service, and industrial process supplies. Any activity that may affect water quality must not result in the water quality exceeding the WQOs. Discussion of the Basin Plan and discharge options are presented as action-specific ARARs.</p>	Groundwater	Relevant and appropriate

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
CHEMICAL-SPECIFIC ARARs			
State Water Resources Control Board (SWRCB) Resolution No. 92-49 Policy and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304 (amended 4\21\94) California Water Code §13307 23 CCR §2550.4	Establishes policies and procedures for oversight of investigations and cleanup and abatement activities resulting from discharges of waste which affect or threaten water quality. Section III.G requires cleanup to attainment of either background water quality, or the best water quality that is reasonable if background water quality cannot be restored. Alternative cleanup levels greater than chemical background concentration for the aquifer will be consistent with maximum benefit to the public, present and anticipated future beneficial uses, and conform to water quality control plans and policies.	Soil and groundwater	Relevant and appropriate
Safe Drinking Water and Toxic Enforcement Act H&S Code §25249.5 et seq. 22 CCR §12601, 12701, 12801, 12901 et seq.	The law was created through a state ballot initiative (Proposition 65) with the intent of providing warning about exposures to chemicals that cause cancer, birth defects, or other reproductive harm, and protecting the drinking water from those chemicals. All agencies of the federal, state, or local government, as well as entities operating public water systems, are exempt by definition. H&S Code 25249.11.b.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
National Historic Preservation Act 16 U.S. Code (USC) §470 et seq. 36 Code of Federal Regulations (CFR) §60.4	The requirements establish a National Register and advisory Council on Historic Preservation. Remedial activities that would affect a property on or eligible for the National Register are required to consult with the Advisory Council and the State Historic Preservation Officer. Surveys that may be required will result in the determination of adverse effects and the development of mitigation reports. Historic sites may be identified on or adjacent to the Site which would be affected by potential remedial activity at this location.	Soil and groundwater	<i><u>To be identified</u></i>
Floodplains Executive Order 11988	Executive Order 11988 requires all federal agencies conducting activities in floodplains to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains. The Site is located in a portion of the City of Whittier that has not been identified by the Federal Emergency Management Agency (FEMA) to be within a 100-year floodplain. No further evaluation of this ARAR for flood hazards is necessary.	Soil and groundwater	Not an ARAR
Federal Endangered Species Act (ESA) of 1973 16 USC §1531 et seq.	The federal ESA requires action(s) to conserve federally listed threatened and endangered species and the specific geographical area occupied by the species that are listed or proposed (critical habitat). The Site is located in an urban community, no federally listed threatened or endangered species protected under the Act have been identified on the Site.	Soil and groundwater	Not an ARAR
Migratory Bird Treaty Act 16 USC §703 et seq. 50 CFR §10.13	Establishment of a federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill..." any migratory bird or any part, nest, or egg of any such bird. None of the alternatives being evaluated affect migratory birds, nests, or eggs of any birds.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
Fish and Game Code §711.7	Designates the Department of Fish and Game as the trustee agency over California's fish and wildlife resources. It also concerns the payment of state filing and permit fees by person engaging in projects or activities under federal licenses, contract or permit (California Public Resources Code §10005; 21089). This section expresses administrative policy and does not necessarily impose a substantive requirement. The requirement is not an ARAR.	Soil and groundwater	Not an ARAR
Fish and Game Code §1600, 1601, 1602, 1603	Requires notification to and action by the Department. It also requires streambed alteration to not substantially adversely affect existing fish or wildlife resource. Section 1601 compliments the operation of federal ARAR 40 CFR section 231.1, which authorizes the USEPA Administrator to prohibit activity whenever he determines that the discharge of dredge or fill material may have an "unacceptable adverse effect" on fish and wildlife. Section 1601 also complements the operation of 16 USC §662, which requires the determination of possible damage to wildlife resources and the means and measures that should be adopted to prevent the loss of or damage to such resources caused by proposed streambed alterations. The requirement is not an ARAR because none of the alternatives involve streambed alteration.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
Fish and Game Code §2014	Policy of the state to conserve its natural resources. It allows the state to recover damages in a civil action against any person or local agency which unlawfully or negligently takes or destroys any bird, mammal, fish, reptile or amphibian protected by the laws of the state.	Soil and groundwater	Not an ARAR
Fish and Game Code §3005	Prohibits the taking of birds and mammals, including taking by poison. "Take" is defined by Fish and Game Code §86 to include killing. "Poison" is not defined in the code, but the COCs (e.g., VOCs) are all poisons by definition since they may effect incidental taking. Although there is no state authority on this point, federal law recognizes that poison, such as strychnine, may effect incidental taking. None of the alternatives evaluated involve or could result in the "taking" of wildlife.	Soil and groundwater	Not an ARAR
Fish & Game Code §3503	This law prohibits take, possession, or needless destruction of any bird nests and eggs, except as provided by the Fish and Game Code or regulations. Implementation of the final remedy will comply with this requirement.	Soil and groundwater	Applicable
Fish and Game Code §3503.5	Prohibits the take, possession, or destruction of any birds in the orders of falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Such species or their eggs are not known to be located on or near the Site.	Soil and groundwater	Not an ARAR
California Endangered Species Act of 1984 California Fish & Game Code, Division 3, Chapter 1.5 Fish and Game Code §2050-2068; 2070-2079	The California Endangered Species Act and regulations require action to conserve state-listed rare, threatened, and endangered species and the critical habitat. The Site is located in a developed urban community, and endangered species have not been identified at the Site. This requirement is not identified as an ARAR, and further evaluation of this requirement is not necessary.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
Fish and Game Code §3511	It is unlawful to take or possess any of the following fully protected birds; American peregrine falcon, brown pelican, California black rail, California clapper rail, California condor, California least tern, golden eagle, greater sandhill crane, light-footed clapper rail, Southern bald eagle, Trumpeter swan, White-tailed kite, and the Yuma clapper rail. Such fully protected birds or their habitat have not been detected on or near the Omega Chemical Superfund Site.		Not an ARAR
Fish and Game Code §3513	Prohibits the take or possession of any migratory nongame bird as designated in the Migratory Bird Treaty Act, or any part of such migratory nongame bird, except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act. This section is applicable and relevant to the extent that nongame birds or their eggs are located on or near the Omega Chemical Superfund Site.		<u>To be determined</u>
Fish and Game Code §3800	This section prohibits the take of nongame birds, except in accordance with regulations of the commission, or when related to mining operations with a mitigation plan approved by the department. This section further provides requirements concerning mitigation plans related to mining. This section is applicable and relevant to the extent that nongame birds or their eggs are located on or near the Omega Chemical Superfund Site.		<u>To be determined</u>
Fish and Game Code §4000 et seq.	This section provides that a fur-bearing mammal may be taken only with a trap, a firearm, bow and arrow, poison under a proper permit, or with the use of dogs.		Not an ARAR
Fish and Game Code §4150	Nongame mammals are those occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals. These mammals, or their parts, may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission.		Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
Fish and Game Code §4700	This section prohibits the take or possession of any of the fully protected mammals or their parts including Morro Bay kangaroo rat, bighorn sheep except Nelson bighorn sheep, northern elephant seal, Guadalupe fur seal, ring-tailed cat, Pacific right whale, salt-marsh harvest mouse, southern sea otter, and wolverine. Such mammals and/or their habitat are not known to be located on or near the Site.		Not an ARAR
Fish and Game Code §4800 et seq.	Mountain lions are specially protected mammals in California. It is unlawful to take, injure, possess, transport, or sell any mountain lion or any part or product thereof.		Not an ARAR
Fish and Game Code §5000 et seq.	Unlawful to sell, purchase, harm, take, possess, or transport any tortoise or parts thereof, or to shoot any projectile at a tortoise. This does not apply to the taking of any tortoise or parts thereof, or to shoot any projectile at a tortoise. This does not apply to the taking of any tortoise when authorized by the department for educational, scientific, or zoological purposes.		Not an ARAR
Fish and Game Code §5050	This section prohibits the take or possession of fully protected reptiles and amphibians or parts thereof and include the blunt-nosed leopard lizard, San Francisco garter snake, Santa Cruz long-toed salamander, and black toad. Such amphibians or reptiles and/or their habitat are not known to be located on or near the Site.		Not an ARAR
Fish and Game Code §5515	Prohibits the take or possession of fully protected fish or parts thereof, including the Colorado River squawfish, thicktail chub, Mohave chub, Lost River sucker, Modoc sucker, shortnose sucker, humpback sucker, Owens River pupfish, unarmored threepin stickleback, rough sculpin.		Not an ARAR
Fish and Game Code §5650	The requirements prohibit the deposition into waters of the state, petroleum products, factory refuse, and any substance deleterious to fish, plants, or birds. This requirement does not apply to discharges or release authorized through waste discharge requirements issued by the RWQCB. This section is not an ARAR because none of the alternatives evaluate surface water releases.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
Fish and Game Code §7050 et seq.	Provide that it is the policy of the state to ensure the conservation, sustainable use, and where feasible, restoration of California's marine living resources.		Not an ARAR
Fish and Game Code §8500	Unlawful to possess or take, unless otherwise expressly permitted in this chapter, mollusks, crustaceans, or other invertebrates, unless a valid tidal invertebrate permit has been issued. The taking, possessing, or landing of such invertebrates pursuant to this section shall be subject to regulations adopted by the commission.		Not an ARAR
14 CCR §40 and 41	Unlawful to take, possess, purchase, propagate, sell, transport, import, or export any native reptile or amphibian, or parts thereof unless under special permit from the department for those species in the regulations which are also state-listed amphibian species.		Not an ARAR
14 CCR §40 and 42	This regulation makes it unlawful to take, possess, purchase, propagate, sell, transport, import, or export any native reptile or amphibian, or parts thereof unless under special permit from the department for those species in the regulations which are also state listed reptile species.		Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
14 CCR §460	Regulation makes it unlawful to take fisher, marten, river otter, desert kit fox, and red fox. This section is not an ARAR because none of these exist at the Site.		Not an ARAR
14 CCR §465	Fur-bearing mammals not listed specifically in 14 CCR §460 and listed in 14 CCR §461, 462, 463, and 464 may be taken only with a firearm, bow and arrow, or with the use of dogs or traps in accordance with the provisions of 14 CCR §465.5 and Fish and Game Code §3003.1.		Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
14 CCR §472	<p>Regulation provides that nongame birds and mammals may not be taken.</p> <ul style="list-style-type: none"> a) The following nongame birds and mammals may be taken except as provided in Chapter 6: English sparrow, starling, coyote, weasels, skunks, opossum, moles, and rodents (excludes tree and flying squirrels, and those listed as furbearers, endangered, or threatened species); b) Fallow, sambar, sika, and axis deer may be taken concurrently with the general deer season. c) Aoudad, mouflon, tahr, and feral goats may be taken all year. d) American crows may be taken only under provisions of section 485 and by landowners or tenants, or person authorized by landowners or tenants, when American crows are committing or about to commit depredations upon ornamental shade trees, agricultural crops, livestock, or wildlife, or when concentrated in such numbers and manner as to constitute a health hazard or other nuisance. If required by federal regulations, landowners or tenants shall obtain a federal migratory bird depredation permit before taking any American crows or authorizing any other person to take them. This section is applicable if such species are found on or near the Site and may be affected by remediation efforts. 		Applicable

TABLE 8-2 (Cont'd)

Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements

Requirements	Description	Media	Applicable or Relevant and Appropriate
LOCATION-SPECIFIC ARARS			
14 CCR §475	Provides that birds and nongame mammals may be taken in any manner except as follows: a) poison may not be used, b) Recorded or electrically amplified bird or mammal calls or sounds or recorded or electrically amplified imitations of bird or mammal calls or sounds may not be used to take any nongame bird or nongame mammal except coyotes, bobcats, American crows, and starlings. The regulation further specifies when taken with equipment and ammunition, traps, feed, bait and/or other material capable of attracting nongame mammals may occur. Nongame birds or nongame mammals will not need to be taken in remediation efforts at the Site.		Not an ARAR
Hazardous Waste Floodplains Requirements 22 CCR §66264.18	The regulations require a facility constructed within a 100-year floodplain to minimize the adverse impacts to the facility from a potential washout. The Site is in an area of "minimal flood hazard," where no part of the community would be inundated by a base flood.	Soil and groundwater	Not an ARAR
Hazardous Waste Seismic Considerations 22 CCR §66264.18 22 CCR §66264.25	Portions of a new hazardous waste facility where treatment, storage, or disposal of hazardous waste will be conducted must not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time. The Site may be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time.	Soil and groundwater	<i>To be determined</i>
ACTION-SPECIFIC ARARS			
Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) Clean Water Act (CWA) §402 et seq.	The NPDES requirements are applied to point and nonpoint discharge sources. Substantive requirements including the establishment of discharge limitations, monitoring requirements, and best management practices for surface water discharges. Applicable to the control of contaminants to stormwater runoff from a treatment plant construction site and groundwater treatment systems.	Evaluation of the Federal Clean Water Act provided below	Evaluation of the Federal Clean Water Act provided below

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
40 CFR §122.26	Nonpoint sources address using best management practices for control of contaminants to stormwater run-off from construction activities. SWRCB has established requirements for general construction activities, including clearing, grading, excavation reconstruction, and dredge and fill activities. Regulates pollutants in stormwater discharge from hazardous waste treatment plants, landfills, land application sites, and spent dumps.	Groundwater	<u>To be determined</u>
40 CFR §125.3	<p>Point sources are primarily end-of-pipe discharge points such as treated effluent from a groundwater treatment plant. Discharges of treated effluent from a groundwater extraction system, monitoring well development and sampling, and treatment system maintenance are the primary sources. The Regional Water Quality Control Board will designate the effluent limitations and monitoring conditions for discharges to surface water including treated water conveyed to storm drains and ditches.</p> <p>Technology-based treatment requirements represent the minimum level of control that must be imposed to meet the effluent limitations using best professional judgment and best available technology economically achievable (BAT). For all toxic pollutants, the BAT is applied to the Site. The requirement is not applicable or relevant because none of the alternatives evaluate surface water discharge.</p>	Groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
40 CFR §403 et seq.	Alternatives that include groundwater disposal at an off-site wastewater treatment facility must meet pre-treatment requirements. Effluent discharged to sanitary sewers and publicly owned treatment works (POTW) are regulated by municipalities through the NPDES Program. Prevents pass-through, interference, violations of prohibitions, and violation of local limits. This is an off-site action and is not considered an ARAR for on-site action. Although not considered an ARAR, off-site disposal actions should follow all the requirements pertaining to CERCLA waste disposal.	Groundwater	Not an ARAR
Water Quality Control Plan	The RWQCB has developed and adopted the regional water quality control plan (Basin Plan) to protect waters of beneficial use fulfilling the legal requirements of the California Water Code. While the WQOs vary for the water bodies affected, the objectives may be applicable for discharges to surface water or land.	Evaluation of the Water Quality Control Plan provided below	Evaluation of the Water Quality Control Plan provided below
Water Quality Control Plan for Los Angeles Region (adopted 9/09/00) California Water Code §13240 et seq.	The Basin Plan presents numerical and narrative WQOs for maintaining a high quality of protection for the inland surface water and groundwater in the region. Groundwater underlying the Site has been identified by the Basin Plan as a potential drinking water aquifer. Groundwater WQOs are provided for contaminants including bacteria, chemicals, radioactivity, minerals, nitrogen, taste, and odor. The WQOs for the COCs at the Site are based on primary MCLs. The requirement is relevant to alternatives evaluating treated groundwater re-injection to the aquifer and soil cleanup to protect groundwater quality.	Soil and groundwater	Relevant and appropriate

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Remediation of Pollution (State Board Resolution No. 68-16; State Board Resolution No. 92-49; California Code of Regulations, Title 23, Chapter 15, Article 5.)	The Basin Plan recognizes the cleanup goals based on the State's Antidegradation Policy as set forth in State Board Resolution No. 68-16. Under the Antidegradation Policy, whenever the existing quality of water is better than that needed to protect present and potential beneficial uses, such existing quality will be maintained. Accordingly, the Regional Board prescribes cleanup goals that are based upon background concentrations. For those cases wherein dischargers have demonstrated that cleanup goals based on background concentrations cannot be attained due to technological and economic limitations, State Board Resolution No. 92-49 sets forth policy for cleanup and abatement based on the protection of beneficial uses. Under this policy, the Regional Board can, on a case-by-case basis, set cleanup levels as close to background as technologically and economically feasible. Such levels must, at a minimum, consider all beneficial uses of the waters. Furthermore, cleanup levels must be established in a manner consistent with California Code of Regulations, Title 23, Chapter 15, Article 5; cannot result in water quality less than that prescribed in the Basin Plans and policies adopted by the state and regional boards; and must be consistent with maximum benefit to the people of the state.	Groundwater	Relevant and appropriate
Porter-Cologne Water Quality Control Act (California Water Code)	The following Porter-Cologne Water Quality Control Act and implementing regulations are reviewed for application to the Site.	Evaluation of the California Water Code provided below	Evaluation of the California Water Code provided below

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
27 CCR Div.2, Subdiv.1	Establishes waste siting classification systems, waste management construction standards, and monitoring for designated and nonhazardous waste management for discharges of waste to land for treatment, storage, and disposal. Exemption form is provided for actions taken by a public agencies (27 CCR §20090).	Soil and groundwater	Not an ARAR
Water Quality Control Plan for the Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California California Water Code §13140	Establishes prohibitions on discharges to cold interstate waters and maximum temperature charges to other waters to protect natural receiving water temperatures; includes site-specific temperature objectives for certain water bodies. Alternatives evaluated for soil and groundwater will not affect temperature for waters of the state.	Soil and groundwater	Not an ARAR
California Water Code §13140 - 13147, 13172, 13260, 13263, 132267, 13304 27 CCR §20090	Actions taken by public agencies for cleanup of <i>nonhazardous</i> releases are exempt from 27 CCR Div.2, Subdiv.1 provided the contaminated materials removed from the immediate place of release shall be discharged according to 27 CCR Div.2, Subdiv.1, Chap.3, Subchap.2, Art.2. Remedial actions intended to contain such wastes at the place of release shall implement applicable SWRCB-promulgated provisions of this division to the extent feasible.	Soil	<i>To be determined</i>
California Water Code §13140 - 13147, 13172, 13260, 13263, 132267, 13304 27 CCR Div.2, Subdiv.1, Chap.3, Subchap.2, Art.2	Wastes classified as a threat to water quality (designated waste) may be discharged to a Class I hazardous waste or Class II designated waste management unit. Nonhazardous solid waste may be discharged to a Class I, II, or III waste management unit. Inert waste would not be required to be discharged into a SWRCB-classified waste management unit (27 CCR §20200 et seq.). The requirement is relevant because CERCLA waste as a result of investigation-derived waste may be generated and would be disposed at a EPA Region IX approved facility in accordance with CERCLA.	Soil	Applicable

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
Solid Waste Assessment Test California Water Code §13273	Authorizes the RWQCB to implement the Solid Waste Assessment Test (SWAT) program with respect to water quality. The purpose of the SWAT program was to identify solid waste disposal sites that may be leaking hazardous waste and threatening water quality. The SWAT requirements do not provide substantive requirements for this Site.	Soil	Not an ARAR
Water Quality Control Plan for Inland Surface Water of California California Water Code §13170	Establishes numerical water quality objectives for the protection of human health and freshwater aquatic life for a large number of a toxic pollutants. It also establishes narrative objectives and toxicity objectives. It provides a program of implementation and specifies proposals to adopt numerical standards for water bodies that are reclaimed water-dominated and agricultural drainage-dominated. The limitations alternatives evaluate discharge of treated groundwater to surface water. The requirements are not applicable or relevant because none of the alternatives evaluate surface water discharges.	Groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
California Ocean Plan California Water Code §13170.2	Establishes beneficial uses of ocean waters, numerical and narrative water quality objectives, effluent quality objectives including toxic material limitations, and discharge prohibitions. The alternatives do not evaluate discharges to the ocean.	Groundwater	Not an ARAR
Water Quality Monitoring and Response Programs for Solid Waste Management Units 27 CCR §20380 et seq.	The monitoring requirements apply to all determinations of alternative cleanup levels for unpermitted discharges to land of solid waste, pursuant to SWRCB Resolution No. 92-49, Section III.G. The provisions for Detection, Evaluation, and Corrective Action Monitoring requirements were developed for the purposes of detecting, characterizing, and responding to releases to groundwater, surface water, or the unsaturated vadose zone. For this removal, corrective action monitoring to demonstrate completion of the selected remedy at the Site would be relevant and appropriate and is further discussed in Corrective Action Program (27 CCR §20430).	Soil and groundwater	Relevant and appropriate
Concentration Limits 27 CCR §20400	Concentration limits must be established for groundwater, surface water, and the unsaturated zone. Must be based on background, equal to background, or for corrective actions, may be greater than background, not to exceed the lower of the applicable water quality objective or the concentration technologically or economically achievable. Specific factors must be considered in setting cleanup standards above background levels. The specific factors have been addressed in SWRCB Resolution No. 92-49.	Soil and groundwater	Relevant and appropriate
Compliance Period 27 CCR §20410	Requires monitoring for compliance with remedial action objectives for years from the date of achieving cleanup standards.	Soil and groundwater	Relevant and appropriate
General Water Quality Monitoring and Systems Requirements 27 CCR §20415	Requires general soil, surface water, and groundwater monitoring. Applies to all areas at which waste has been discharged to land.	Soil and groundwater	Relevant and appropriate

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Evaluation Monitoring Program 27 CCR §20425	Requires an assessment of the nature and extent of the release, including a determination of the spatial distribution and concentration of each constituent. The nature and extent of contamination is still being determined.	Soil and groundwater	<u>to be determined</u>
Corrective Action Program 27 CCR §20430	<p>Corrective action measures taken (e.g., groundwater pump-and-treat system) may be terminated when the discharger demonstrates that all the COCs concentrations are reduced to levels below their respective concentration limits throughout the entire zone affected by the release.</p> <p>Corrective action completed when:</p> <ul style="list-style-type: none"> - The concentration of each contaminant of concern in each sample from each monitoring point in the Corrective Action Program for the Unit has remained at or below its respective concentration limit during a proof period of at least one year, beginning immediately after the suspension of corrective action measures; and - The individual sampling events for each monitoring point have been evenly distributed throughout the proof period and have consisted of no less than eight sampling events per year per monitoring point. <p>The schedule to confirm attainment of cleanup levels appears relevant and appropriate.</p>	Soil and groundwater	Relevant and appropriate
Closure and Post-Closure Maintenance Requirements for Solid Waste Landfills 27 CCR §21090	Requires a final cover constructed in accordance with specific prescriptive standards, to be maintained as long as wastes pose a threat to water quality. Relevant and appropriate for "closed, abandoned, or inactive" landfills and other areas where wastes have been discharged to land and water quality is threatened.	Soil	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Water Code §13140 40 CFR §131.12 Maintaining High Quality Water in California SWRCB Resolution No. 68-16	<p>The policy derives its authority to maintain the highest quality of water through waste discharge regulations to surface water and land implemented through the federal NPDES or California's Discharges of Waste to Land (27CCR Division 2, Chapter 3), respectively.</p> <p>SWRCB Resolution No. 68-16 requires maintenance of existing state water quality using best practicable treatment technology unless a demonstrated change will benefit the people of California, will not unreasonably affect present or potential uses, and will not result in water quality less than that prescribed in other state policies.</p> <p>Applies to the discharge of waste to waters, including alternatives that include re-injection into the aquifer and discharges to soil that may affect surface water or groundwater. In situ cleanup levels for contaminated groundwaters must be set at background level, unless allowed. If degradation of waters is allowed to remain, the discharge must meet best practical treatment or control standards, and result in the highest water quality possible that is consistent with the maximum benefit to the people of the state. In no case may water quality objectives be exceeded.</p>	Groundwater	Applicable

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Sources of Drinking Water SWRCB Resolution No. 88-63	<p>This policy specifies that ground and surface waters of the state are either existing or potential sources of municipal and domestic supply except water supplies with:</p> <ul style="list-style-type: none"> a. Total dissolved solids exceeding 3,000 milligrams per liter, or b. Natural or anthropogenic contamination (unrelated to a specific pollution incident) that cannot reasonably be treated for domestic use using either best management practices (BMPs) or best economically achievable treatment practices, or c. The water source does not provide a sustained yield of 200 gallons per day. <p>The requirement appears to be applicable because groundwater underlying the Site meet the criteria as a potential source for drinking water.</p>	Groundwater	Applicable
California Hazardous Waste Control Law H&S Code Div. 20, Chap. 6.5	The California law is more stringent than federal hazardous waste law and is applied to this Site. The following hazardous waste requirements are review for application to the Site.	Evaluation of the Hazardous Waste Control Law provided below	Evaluation of the Hazardous Waste Control Law provided below
Identification and Listing of Hazardous Waste 22 CCR Div. 4.5, Chap. 11 22 CCR §66264.13 22 CCR §66260.200	A generator must determine if the waste is classified as a hazardous waste in accordance with the criteria provided in these requirements. Waste characteristics of treated soil and groundwater will be defined prior to treatment and disposal. This methodology to characterize waste at the Site may result showing some of the waste identified at the Site meet the characteristics of hazardous waste. Any subsequent hazardous waste requirement would be relevant and appropriate or not an ARAR.	Soil and groundwater	Applicable

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Standards Applicable to Generators of Hazardous Waste 22 CCR Div. 4.5, Chap. 12	<p>Waste transport off-site for treatment or disposal must obtain and use a hazardous waste manifest and comply with the Department of Transportation packaging, labeling, marking, placarding requirements. Waste may be accumulated on site for 90 days without a permit. Off-site actions and administrative requirements such as transport, manifesting, permitting, and record keeping are not applicable or relevant since ARARs address on-site activities.</p> <p>The purpose of the 90-day storage limit is to prevent creating a greater environmental hazard than already exists at the Site. Waste contained on-site will be maintained in a container in good conditions (see Use and Management of Containers) prior to off-site disposal. EPA Region IX-approved CERCLA disposal facility must be used to dispose of CERCLA waste.</p>	Soil and groundwater	Relevant and appropriate
Hazardous Waste Security 22 CCR §66264.14	Any proposed treatment facility is anticipated to maintain a fence in good repair which completely surrounds the active portion of the facility. A locked gate at the facility should restrict unauthorized personnel entrance. The security standards to prevent entry from unauthorized personnel for the proposed remedial treatment alternatives should be applied.	Soil and groundwater	Relevant and appropriate

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Hazardous Waste Facility General Inspection Requirements and Personnel Training 22 CCR §66264.15 - 66264.16	The hazardous waste facility standards require routine facility inspections conducted by trained hazardous waste facility personnel. Inspections are to be conducted at a frequency to detect malfunctions and deterioration, operator errors, and discharges which may be causing or leading to a hazardous waste release and a threat to human health or the environment. Relevant to the proposed treatment facilities for this Site.	Soil and groundwater	Relevant and appropriate
Ignitable, Reactive, or Incompatible Waste 22 CCR §66264.17	Requirements for prevention of accidental reaction or ignition of waste. There are no ignitable, reactive, or incompatible wastes at this Site.	Soil and groundwater	Not an ARAR
Preparedness and Prevention 22 CCR Div. 4.5, Chap. 14, Art. 3	Facility design and operation to minimize potential fire, explosion, or unauthorized release of hazardous waste.	Soil and groundwater	Relevant and appropriate
Contingency Plan and Emergency Procedures 22 CCR Div. 4.5, Chap. 14, Art. 4	The requirements designation of an emergency coordinator to implement emergency response procedures for hazardous waste operations. While emergency response procedures will be developed, administrative requirements are not ARARs.	Soil and groundwater	Not an ARAR
Manifest System, Recordkeeping, and Reporting 22 CCR Div. 4.5, Chap. 14, Art. 5	Administrative requirements for hazardous waste manifesting and recordkeeping. This requirement applies to off-site actions. Administrative requirements are not ARARs.	Soil	Not an ARAR
Water Quality Monitoring and Response Systems for Permitted Systems 22 CCR Div. 4.5, Chap. 14, Art. 6	The requirements present the groundwater monitoring system objectives and standards to evaluate the effectiveness of the corrective action program (remedial activities). After completion of the remedial activities and closure of the facility, groundwater monitoring will continue for additional years to ensure attainment of the remedial action objectives. This requirement is similar to 27 CCR §20410. Groundwater monitoring considered for the remedial alternatives.	Groundwater	Relevant and appropriate

TABLE 8-2 (Cont'd)

Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Closure and Post-Closure 22 CCR Div. 4.5, Chap. 14, Art. 7	The closure and post-closure requirements establish standards to minimize maintenance after facility closure to protect human health and the environment. The closure and post-closure requirements may be dependent upon the treatment alternatives. Clean closure of the treatment facility through equipment decontamination and removal of any hazardous waste is anticipated.	Soil and groundwater	Relevant and appropriate
Use and Management of Containers 22 CCR Div. 4.5, Chap. 14, Art. 9	Maintain container and dispose to a Class I hazardous waste disposal facility within 90 days. Storage of investigation-derived waste (<i>i.e.</i> , soil cuttings and well development) will be generated. Requirements may apply for the storage of contaminated groundwater and sediments trapped by the bag filter during start-up operation. The 90-day storage limit is to not create a greater environmental hazard than already exists. Maintaining the containers in good conditions at all times and not creating an environmental hazard is relevant and appropriate.	Soil and groundwater	Relevant and appropriate
Tank Systems 22 CCR Div. 4.5, Chap. 14, Art. 10	Minimum design standards (<i>i.e.</i> , shell strength, foundation, structural support, pressure controls, seismic considerations) for tank and ancillary equipment are established. The requirements for minimum shell thickness and pressure controls to prevent collapse or rupture is to not create a greater environmental hazard than already exists. The requirements are relevant and appropriate for the proposed treatment alternatives (22 CCR§ 66264.193).	Groundwater	Relevant and appropriate
Surface Impoundments 22 CCR Div. 4.5, Chap. 14, Art. 11	Substantive facility design, operation, operational monitoring, closure requirements for liquids and sludges in surface impoundments. None of the alternatives include the use of surface impoundments in the treatment process.	Groundwater	Not an ARAR
Waste Piles 22 CCR Div. 4.5, Chap. 14, Art. 12	Substantive facility design, operation, operational monitoring, closure requirements for solids contained in a waste pile. None of the alternatives include the use of waste piles in the treatment process.	Soil	Not an ARAR

TABLE 8-2 (Cont'd)

Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Land Treatment 22 CCR Div. 4.5, Chap. 14, Art. 13	Substantive facility design, operation, operational monitoring, closure requirements for ex situ treatment of soil classified as hazardous waste. The requirement is not applicable or relevant because ex situ treatment of soil on site is not an alternative.	Soil	Not an ARAR
Landfills 22 CCR Div. 4.5, Chap. 14, Art. 14	Substantive facility design, operation, operational monitoring, closure requirements for liquids and sludges in surface impoundments. None of the alternatives apply the use of landfills in the treatment process.	Soil	Not an ARAR
Incinerators 22 CCR Div. 4.5, Chap. 14, Art. 15	Substantive performance standards, operation, operational monitoring, closure requirements for incinerators. Site related contamination may be hazardous waste, however, not at levels required appropriate for this regulation.	Soil and groundwater	<u>to be determined</u>
Corrective Action for Waste Management Units 22 CCR Div. 4.5, Chap. 14, Art. 15.5	Establishes placement, consolidation, and treatment of soils and wastes being generated as part of a corrective action under Resource Conservation and Recovery Act (RCRA) and will not be considered a new disposal to land as long as the materials are handled in a corrective action management unit (CAMU).	Soil and groundwater	<u>to be determined</u>
Miscellaneous Units Requirements 22 CCR Div. 4.5, Chap. 14, Art. 16 22 CCR §66264.601 - 66264.603	Minimum performance standards are established for miscellaneous equipment to protect health and the environment. Treatment of hazardous waste through an air stripper or granulated activated carbon (GAC) would qualify as a RCRA miscellaneous unit if the contaminated water constituted a hazardous waste. Therefore, the substantive requirements for miscellaneous units and related substantive closure requirements may be relevant and appropriate for the Site.	Soil and groundwater	Relevant and appropriate

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Air Emission Standards for Process Vents 22 CCR Div. 4.5, Chap. 14, Art. 27	Emission limits at 3 lbs/hr, 3.1 tons/yr, or reduction by 95% by weight with control devices. Design and operating requirement for closed vents and control devices used to reduce emissions (i.e., vapor-phase carbon and catalytic oxidation). Local air pollution control district rules and regulations are more stringent.	Soil and groundwater	Not an ARAR
Air Emission Standards for Equipment Leaks 22 CCR Div. 4.5, Chap. 14, Art. 28	Standards for hazardous waste storage or treatment with an organic content greater than 10%. Contaminants of concern at the Site do not contain waste greater than 10% organic contaminants.	Soil and groundwater	Not an ARAR
Land Disposal Restrictions General 22 CCR Div. 4.5, Chap. 18, Art. 1	Provides the purpose, scope and applicability of land disposal restrictions. Only relevant if excavated waste are classified as hazardous waste and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<u>to be determined</u>
Land Disposal Restrictions Schedule for Land Disposal Prohibition and Establishment of Treatment Standards 22 CCR Div. 4.5, Chap. 18, Art. 2	Provides a list of waste subject to land disposal restrictions. Only relevant if excavated wastes are classified as hazardous waste and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<u>to be determined</u>
Land Disposal Restrictions Prohibition on Land Disposal 22 CCR Div. 4.5, Chap. 18, Art. 3	Provides waste-specific land disposal restrictions for solvent waste, dioxin-containing wastes, and California Listed waste. Only relevant if excavated wastes are classified as hazardous waste and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<u>to be determined</u>

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Land Disposal Restrictions Treatment Standards 22 CCR Div. 4.5, Chap. 18, Art. 4	Provides treatment standards expressed in contaminant concentrations in waste extract, specified technologies, and waste treatment concentrations. Only relevant if excavated wastes are classified as hazardous wastes and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<i>to be determined</i>
Land Disposal Restrictions Prohibition on Storage 22 CCR Div. 4.5, Chap. 18, Art. 5	Provides prohibition on storage of restricted waste. Only relevant if excavated wastes are classified as hazardous wastes and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<i>to be determined</i>
Land Disposal Restrictions Land Disposal Prohibitions - Non-RCRA Wastes 22 CCR Div. 4.5, Chap. 18, Art. 10	The requirements establish hazardous waste disposal standards through numerical treatment limitations and treatment technologies. Only relevant if excavated wastes are classified as hazardous wastes and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<i>to be determined</i>
Land Disposal Restrictions Treatment Standards - Non-RCRA Waste Categories 22 CCR Div. 4.5, Chap. 18, Art. 11	The requirements establish hazardous waste disposal standards through numerical treatment limitations and treatment technologies. Only applicable or relevant if excavated wastes are classified as hazardous wastes and disposed or treated ex situ and on site outside the CAMU-designated area.	Soil and groundwater	<i>to be determined</i>
Toxic Pits Cleanup Act of 1984 H&S Code §25208 23 CCR Div. 3, Chap. 15	Authorizes the RWQCB to regulate free hazardous waste liquid to surface impoundments. Requires compliance with specific investigation, remediation, and reporting requirements. There are no toxic pits at this Site. Regulates siting, design, construction, operation, closure, and monitoring of hazardous waste discharges to land for treatment, storage, or disposal, including landfills, surface impoundments, waste piles, and land treatment facilities.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Aboveground Petroleum Storage Act H&S Code §25270	Regulates use of and discharges from aboveground petroleum tanks, including monitoring, inspection, spill reporting, and development of spill prevention and countermeasure plan requirements. There are no aboveground petroleum storage tanks at this Site.	Soil and groundwater	Not an ARAR
Underground Storage of Hazardous Substances H&S Code Div. 20, Chap. 6.7 23 CCR Div. 3, Chap. 16	Regulates permitting and testing of underground tanks and specifies requirements for corrective action of discharges from tanks. There are no underground tanks at the Site.	Soil and groundwater	Not an ARAR
South Coast Air Quality Management District (SCAQMD) Rules and Regulations	The SCAQMD regulations are established to achieve and maintain state and federal ambient air quality standards through the federal-approved state implementation plan (SIP).	Evaluation of SCAQMD rules and regulations provided below	Evaluation of SCAQMD rules and regulations provided below
Regulation IV, Rule 1401, Visible Emissions.	Prohibitions on gross visible smoke emission exceeding Ringlemann standards, open burning, burn refuse, gross sulfur oxides (SOx) and particulate matter (PM) combustion contaminants, organic solvent emissions, SOx, nitrogen oxides (NOx), and PM emissions from generators, circumvention of rules, and storage of organic liquids.	Soil and groundwater	Applicable
Regulation IV, Rule 402, Nuisance.	A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property.	Soil and groundwater	Applicable

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Regulation IV, Rule 403, Fugitive Dust	Emissions of fugitive dust shall not remain visible in the atmosphere beyond the property line of the emission source. Activities conducted in the South Coast Air Basin shall use best available control measures to minimize fugitive dust emissions and take necessary steps to prevent the track-out of bulk material onto public paved roadways as a result of their operations.	Soil	Applicable
Regulation IV, Rule 404, Particulate Matter – Concentration.	Particulate matter in excess of the concentration standard conditions shall not be discharged from any source. Particulate matter in excess of 450 milligrams per cubic meter (0.196 grain per cubic foot) in discharged gas, calculated as dry gas at standard conditions, shall not be discharged to the atmosphere from any source.	Soil and groundwater	Applicable
Regulation IV, Rule 405, Solid Particulate Matter – Weight.	Solid particulate matter including lead and lead compounds discharged into the atmosphere from any source shall not exceed the rates Table 450(a) of Rule 405. Nor shall solid particulate matter including lead and lead compounds in excess of 0.23 kilogram (0.5 pound) per 907 kilograms (2,000 pounds) of process weight be discharged to the atmosphere. Emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.	Soil	Applicable
Regulation XI, Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil.	The purpose of Rule 1166 is to control the emission of VOCs from excavating, grading, handling, and treating VOC-contaminated soil. Mitigation Plans must be applied for and obtained for excavating and grading VOC containing soil. Excavating and grading VOC containing soil is not proposed. Plans shall describe how VOC emissions to the atmosphere during treatment of VOC-contaminated soil will be minimized. This Site is not anticipated to be classified as a major emission source.	Soil and groundwater	Not an ARAR

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
ACTION-SPECIFIC ARARS			
Regulation XIII, Rule 1303 - New Source Review	Construction for any relocation or for any new or modified source which results in an emission increase of any nonattainment air contaminant, any ozone-depleting compound, or ammonia, must include BACT for the new or relocated source or for the actual modification to an existing source. This requirement would apply to treatment technologies with potential to emit primary pollutant(s) to the atmosphere.	Soil and groundwater	Applicable
Regulation XIV, Rule 1401, New Source of Toxic Air Contaminants.	Construction or reconstruction of a major stationary source emitting hazardous air pollutants shall be constructed with Best Available Control Technology for Toxics (T-BACT) and complies with all other applicable requirements.	Soil and groundwater	Applicable
California Environmental Quality Act (CEQA) California Public Resources Code §21100 et seq. 14 CCR §15000 et seq.	Requires analysis of environmental impacts of response actions, comparison of alternative actions, and implementation of appropriate mitigation measures. CEQA documentation is an informational document for the Lead Agency and does not prescribe substantive requirements.	Soil and groundwater	Not an ARAR
TO-BE-CONSIDERED DOCUMENTS			
A Compilation of Water Quality Goals (August 2000 ed.)	Provides guidance on selecting numerical values to implement narrative water quality objectives contained in the Basin Plan. Considered to develop cleanup levels to meet SWRCB Resolution 92-49.	Soil and groundwater	To-be-considered
The Designated Level Methodology for Waste Classification and Cleanup Level Determination	Provides guidance on how to classify wastes to meet SWRCB hazardous waste management requirements (23 CCR Div.3, Chap.15, Art.2) and designated, nonhazardous, and inert waste management requirements (27 CCR Div.2, Subdiv.1, Chap.3, Subchap.2, Art.2). Considered to evaluate control of contaminants in the vadose zone.	Soil and groundwater	To-be-considered

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
TO-BE-CONSIDERED DOCUMENTS			
California Action Levels	Action Levels (ALs) are health-based advisory levels established by the California Department of Health Services for contaminants that lack primary MCLs. ALs are advisory levels and not enforceable standards. An AL is the level of a contaminant in drinking water that is considered not to pose a significant health risk to people ingesting that water on a daily basis. It is calculated using standard risk assessment methods for noncancer and cancer endpoints, and typical exposure assumptions, including a 2-liter per day ingestion rate, a 70-kilogram adult body weight, and a 70-year lifetime. For 1,4-dioxane, a chemical considered a probable carcinogen and a COC at the Site, the AL is generally a level considered to pose "de minimis" risk (i.e., a theoretical lifetime increase in risk of up to one excess case of cancer in a population of 1,000,000 people—the 10E-6 risk level). Table 8-1 provides the AL for 1,4-dioxane.	Groundwater	To-be-considered
California Well Standards California Department of Water Resources Bulletin 74-90	This is a supplement to Bulletin 74-81(domestic water well standards) that address minimum specifications for monitoring wells, extractions wells, injection wells, and exploratory borings. Design and construction specifications are considered for construction and destruction of wells and borings.	Soil and groundwater	To-be-considered
SWRCB Leaking Underground Fuel Tank Manual	Guidance on establishing cleanup levels and remediation of underground fuel tank releases. There are no fuel tank releases at the Site, and the guidance document does not provide further information or procedures on the level of protectiveness for the Site.	Soil and groundwater	Not a to-be-considered document

TABLE 8-2 (Cont'd)

**Omega Chemical Superfund Site Environmental Evaluation/Cost Analysis (EE/CA)
Potential Applicable or Relevant and Appropriate Requirements**

Requirements	Description	Media	Applicable or Relevant and Appropriate
TO-BE-CONSIDERED DOCUMENTS			
Fish and Game Commission Wetlands Policy (adopted 1987) included in Fish and Game Code Addenda	This policy seeks to provide for the protection, preservation, restoration, enhancement, and expansion of wetland habitat in California. Further, it opposes any development or conversion of wetland that would result in a reduction of wetland acreage or habitat value. It adopts the USFWS definition of a wetland, which utilizes hydric soils, saturation or inundation, and vegetation criteria, and requires the presence of at least one of these criteria (rather than all three) in order to classify an area as a wetland. This policy is not a regulatory program and should be included as a TBC.		Not an ARAR